#### **BEFORE**

# THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

**DOCKET NO. 2019-224-E DOCKET NO. 2019-225-E** 

In the Matter of: ) **DUKE ENERGY CAROLINAS,** ) South Carolina Energy Freedom Act LLC'S AND DUKE ENERGY ) (House Bill 3659) Proceeding Related to PROGRESS, LLC'S SECOND SET S.C. Code Ann. Section 58-37-40 and OF REQUESTS FOR Integrated Resource Plans for Duke PRODUCTION OF DOCUMENTS Energy Carolinas, LLC and Duke Energy AND INTERROGATORIES TO Progress, LLC SOUTH CAROLINA SOLAR ) **BUSINESS ALLIANCE, INCORPORATED** 

Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (together, "Duke Energy" or the "Companies"), by and through their legal counsel, pursuant to Rule 103-833(C) of the Rules of Practice and Procedure of the Public Service Commission of South Carolina, hereby serve South Carolina Solar Business Alliance, Inc. ("SBA") with the following Second Set of Requests for Production and Interrogatories to be answered under oath on or before twenty (20) days from the date of service.

Further, please take notice that these Requests for Production and Interrogatories are continuing in nature until the date of the hearing, and that any information or responsive materials identified after your responses have been served upon the undersigned counsel should be provided via supplemental discovery responses as soon as possible after such identification.

#### **INSTRUCTIONS**

- Please produce the requested documents as they are kept in the usual course of business or to organize and label them to correspond with the categories in the Request.
  Documents attached to each other should not be separated.
- 2. In producing Documents, furnish all documents known or available to you, regardless of whether such documents are possessed directly by you or your agents, employees, representatives, investigators, or by your attorneys. All requests for Documents specifically request documents of SBA as well as agents or consultants that SBA has retained to provide expert testimony in this proceeding.
- 3. If any document otherwise responsive to any Request was, but is no longer, in your possession, subject to your control or in existence, identify each document by listing its author(s) and addressee(s), date, subject matter, whether the document(s) or copies are still in existence (and if so, their locations and the custodians), as well as whether the document is missing or lost, has been destroyed, has been transferred voluntarily to others, or has been otherwise disposed of. In each instance, explain the circumstances surrounding such disposition and identify the person(s) directing or authorizing its destruction or transfer, and the date(s) of such direction or authorization.
- 4. If a privilege or objection as to any Request is claimed, identify with specificity the matter as to which the privilege or objection is claimed, the nature of the privilege or objection, and the legal and factual basis for each such claim, and provide a complete description of the information or document being withheld.
- 5. Unless otherwise stated, the relevant time period for these Requests is from January 1, 2018, until the present.

- 6. Each Request shall be reproduced at the beginning of the response thereto.
- 7. Please provide copies of the information responsive to each Request in native electronic working format with all data and formulas intact.
- 8. Please provide responses to the following data requests electronically. To the extent this is impracticable, the responses, including any responsive Documents, should be provided at the offices of Robinson, Gray, Stepp & Laffitte, LLC, 1310 Gadsden Street, Columbia, South Carolina 29201, or some mutually convenient location otherwise agreed to by the parties.

# **DEFINITIONS**

- 1. "Commission" means the Public Service Commission of South Carolina.
- 2. "Communication" means the transmittal of information in the form of facts, ideas, Documents, inquiries, or otherwise, including every discussion, conversation, conference, or telephone call.
- 3. "You" and "your" means the South Carolina Solar Business Alliance, Incorporated ("SBA"), South Carolina Solar Business Alliance, Incorporated's witnesses in this proceeding, including but not limited to, retained witnesses from Solar Energy Industries Association, and Energy and Environmental Economics, Inc., and all of their members, agents, representatives and attorneys.
- 4. "SEIA" means the Solar Energy Industries Association and all of its members, agents, representatives and attorneys
  - 5. **"Dockets"** means Commission Docket Nos. 2019-224-E & 2019-225-E.
- 6. The term "document" is to be construed as broadly as permissible under Rule 34 of the South Carolina Rules of Civil Procedure and includes, but is not limited to, any printed, typewritten, handwritten or otherwise recorded information of whatever

character, including, but not limited to, letters, memoranda, notes, diaries, reports, records, calendars, charts, audio and/or video tapes or discs, and photographs; computer programs or disks; electronic media records, however recorded and maintained, including, but not limited to, electronic mail, voicemail messages, digital photographs and electronically scanned records of any type; recorded observations, statements, conversations or formal affidavits. Any carbon or photocopy of any such materials upon which notations have been made and all drafts are also included.

- 7. **"Person"** means any natural person or any business, legal, or governmental entity or association.
- 8. The terms "related to" and "relating to" or any variation thereof shall be construed to include refer to, summarize, reflect, constitute, contain, embody, mention, show, comprise, evidence, discuss, describe, comment on, concerning, regarding, eluding to, pertaining to, probative of, in connection with, dealing with, in respect of, about, involved, identifying or proving.
- 9. **"Identify"** when referring to a Person, means to give, to the extent known, the Person's full name, present or last known address, and when referring to a natural Person, additionally, the present or last known place of employment.
- 10. "Identify" when referring to Documents, means to give, to the extent known, the (i) type of Document; (ii) general subject matter; (iii) date of the Document; and (iv) authors, addressees and recipients.
- 11. "Identify" when referring to an oral Communication, means to give, to the extent known, the identity of the speaker and of each Person who was present when the Communication was spoken, and the substance, date, and place of such Communication.

12. "Integrated Resource Plans" or "IRPs" refers to DEC's and DEP's respective integrated resource plans filed with the Public Service Commission of South Carolina in the Dockets on September 1, 2020.

## **INTERROGATORIES**

# **Testimony of Kevin Lucas**

1-1. Referring to Mr. Lucas's testimony beginning at Page 1, Line 7 that the SEIA is "leading the transformation to a clean energy economy, creating the framework for solar to achieve 20% of the U.S. electricity generation by 2030[,]" please state whether SEIA advocates for use of any technologies other than solar and battery storage to achieve its clean energy goals.

#### **ANSWER:**

1-2. Referring to Mr. Lucas's testimony beginning at Page 1, Line 14 regarding his experiencing developing testimony in rate design, cost allocation, resource selection, and portfolio analysis, please identify all IRP proceedings (State, Docket, Date of Testimony) in which Mr. Lucas has testified in the last five (5) years. For each proceeding or case identified, please provide the testimony or a brief summary of the testimony.

#### **ANSWER:**

1-3. Referring to Mr. Lucas's testimony beginning at Page 1, Line 19 outlining his background qualifications, please describe Mr. Lucas's firsthand experience, if any, with the operation of a large utility power system managing a portfolio of diverse resources to provide reliable electric service to large amounts of customers on a 24/7 basis.

#### **ANSWER:**

1-4. Referring to Mr. Lucas's testimony beginning at Page 1, Line 19 outlining his background qualifications, please describe Mr. Lucas's firsthand experience, if any, balancing economics, environmental prudence and reliability to provide customers with reliable electric service.

#### **ANSWER:**

1-5. Referring to Mr. Lucas's testimony beginning at Page 9, Line 2 pointing out purported shortcomings in the Companies IRP plans, please explain in detail the method Mr. Lucas would adopt to manage a single integrated power system covering two states—one that requires least cost planning and one that does not. Please also list any other utility in the nation that must plan under a similar set of circumstances and state whether or not the utility's IRP meets the recommendations for which SBA advocates in this proceeding.

#### **ANSWER:**

1-6. Referring to Mr. Lucas's testimony beginning at Page 23, Line 2 that technologies such as SMRs and NGCC with CCS "are not yet commercialized[,]" please identify the resources you believe will be available to meet customers' energy needs 100% of the time over the next 15 years.

#### **ANSWER:**

1-7. Referring to Mr. Lucas's recommendation beginning at Page 39, Line 9 of his testimony that the Companies should "model lower [O&M] costs to mirror the discount from the NREL ATB that is used in the Company's capital cost forecast [and] assume a price decline at least as aggressive as the NREL ATB Moderate scenario to reflect the innovation occurring in the O&M space[,]" please explain in detail the reasoning behind Mr. Lucas's selection of the NREL ATB standard as the most appropriate benchmark of solar and battery costs.

#### **ANSWER:**

1-8. Referring to Mr. Lucas's testimony beginning at Page 58, Line 15 that "Duke should update its assumptions on future builds of solar to be 100% single-axis tracking systems for large projects and at least 80% single-axis tracking systems for future PURPA projects[,]" please state the basis for this recommendation.

#### **ANSWER:**

1-9. Referring to Mr. Lucas's recommendation beginning at Page 74, Line 4 of his testimony that "[i]f Duke wishes to use market prices for up to ten years in its gas forecast, it should obtain market quotes from reliable brokers for a meaningful quantity of gas to see if they are available and at prices comparable to small purchases[,]" please state Mr. Lucas's experience, if any, purchasing natural gas for a fleet of resources and identify any quotes you have received from natural gas brokers over the last 5 years.

#### **ANSWER:**

1-10. Referring to Mr. Lucas's testimony beginning at Page 74, Line 4 that the Companies should "obtain market quotes from reliable brokers for a meaningful quantity of gas[,]" please provide Mr. Lucas' definition of "reliable" and identify each and every broker known to Mr. Lucas who would fit the "reliable" designation.

#### **ANSWER:**

1-11. Referring to Mr. Lucas's testimony beginning at Page 75, Line 4 that natural gas prices "are best described as highly volatile[,]" please provide the rationale for this statement and identify any documents that support this statement.

#### **ANSWER:**

1-12. Referring to Mr. Lucas's testimony beginning at Page 75, Line 10 that "[d]emand for natural gas is highly dependent on weather and storage capacity, leading to major swings in prices during extreme weather events that affect demand or natural disasters that impact supply[,]" explain, to Mr. Lucas's knowledge, how solar and battery resources performed, including any impact on pricing, during the extreme weather events referenced in your testimony—"Hurricane Katrina in 2005, Hurricane Ike in 2008, and the Polar Vortex in 2014."

#### **ANSWER:**

1-13. Referring to Mr. Lucas's testimony beginning at Page 86, Line 15 regarding fundamental forecasts, please state whether Mr. Lucas believes there is a "lag" in fundamental forecast prices as compared to the actual marketplace for natural gas and, if

so, state why Mr. Lucas believes the Companies should expect customers to pay higher fuel prices resulting from any such lag.

# **ANSWER:**

1-14. As provided in the instructions to these Interrogatories, if a privilege or objection as to any Request is claimed, identify with specificity the matter as to which the privilege or objection is claimed, the nature of the privilege or objection, the legal and factual basis for each such claim, and a complete description of the information or document being withheld.

## **ANSWER:**

## **REQUESTS FOR PRODUCTION**

1-1. Please produce any and all documents identified, referred to, or relied upon in preparing your response to Duke Energy's Second Set of Interrogatories to SBA.

## **RESPONSE:**

1-2. Referring to Mr. Lucas's testimony beginning at Page 75, Line 10 that "[d]emand for natural gas is highly dependent on weather and storage capacity, leading to major swings in prices during extreme weather events that affect demand or natural disasters that impact supply[,]" provide any documents or workpaper Mr. Lucas reviewed or relied upon to assess the performance of solar and battery resources, including any impact on pricing, during the extreme weather events referenced in your testimony—"Hurricane Katrina in 2005, Hurricane Ike in 2008, and the Polar Vortex in 2014."

# **RESPONSE:**

1-3. As provided in the instructions to these Requests, if a privilege or objection as to any Request is claimed, identify with specificity the matter as to which the privilege or objection is claimed, the nature of the privilege or objection, the legal and factual basis for each such claim, and a complete description of the information or document being withheld.

#### **RESPONSE:**

# Dated this 26<sup>th</sup> day of February 2021.

## /s/Heather Shirley Smith

Heather Shirley Smith Deputy General Counsel Duke Energy Carolinas, LLC Duke Energy Progress, LLC 40 W. Broad Street, Suite 690 Greenville, South Carolina 29601

Phone: (864) 370-5045

Email: heather.smith@duke-energy.com

Rebecca J. Dulin Associate General Counsel Duke Energy Carolinas, LLC Duke Energy Progress, LLC

1201 Main Street, Suite 1180

Capital Center Building Columbia, South Carolina 29201

Phone: (903) 988-7130

Email: rebecca.dulin@duke-energy.com

#### and

Samuel Wellborn Robinson, Gray, Stepp & Laffitte, LLC 1310 Gadsden Street Columbia, South Carolina 29201

Phone: (803) 231-7829

Email: swellborn@robinsongray.com

Attorneys for Duke Energy Carolinas, LLC and Duke Energy Progress, LLC